

ISOPODA.

Cirolana rossii, Miers. Cat. N.Z. Crust., p. 109; Index Faunæ N.Z., p. 263.

One small specimen, dredged off Great Barrier Island, appears to belong to this common species, but it is immature, and the eyes very indistinct, so that the identification is not free from doubt.

Among the *Isopoda* were two or perhaps three species of *Sphæromidæ*, one apparently belonging to the genus *Cilicæa*, and new to New Zealand. But I cannot identify these with existing species, and do not care to venture on the description of new species of this difficult family pending the appearance of Dr. H. J. Hansen's work on the genera of the group.

ART. XXXI.—*List of Crustacea from the Chatham Islands.*

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IN connection with the origin of the fauna of New Zealand that of the outlying islands is of especial importance, and I am therefore giving here a list of some *Crustacea* from Chatham Islands, a group situated about 450 miles east from Lyttelton Harbour. It will be seen that the list is a very short one, and this must necessarily be the case, for no systematic collection of the *Crustacea* has been so far made, and I have only a few specimens that have been gathered at odd times by Mr. A. Shand, Miss S. D. Shand, Professor Kirk, and Dr. Dendy. The list, indeed, would be hardly worth while publishing of itself, but I hope that it will be the means of causing others who may have the opportunity of doing so to pay special attention to the fauna and flora of these and other outlying islands of New Zealand. The terrestrial and fresh-water faunas are of the greatest value in this connection, and it is of extreme importance that they should be studied, and if possible preserved, before it is too late.

BRACHYURA.

Paramithrax latreillei, Miers. Index Faunæ N.Z., p. 247

Numerous specimens from Te Whakuru (*Miss Shand*).

Platyonichus bipustulatus, M.-Edwards. Index Faunæ N.Z., p. 249.

From Te Whakuru (*Miss Shand*).

Halicarcinus planatus, Fabr. Index Faunæ N.Z., p. 250 ;
Stebbing, Proc. Zool. Soc., 1900, p. 524.

Numerous specimens from Te Whakuru (*Miss Shand*).

Hymenicus marmoratus, Chilton. Index Faunæ N.Z., p. 250.

Specimens from Te Whakuru (*Miss Shand*) agree with the type specimen, which came from Lyttelton, but I am doubtful whether the species is a good one; it may be identical with one of those described by earlier authors. A revision of the New Zealand *Hymenosomidæ* is very much needed; and I allow the species to stand in the meantime till full comparison with others can be made.

Elamena producta, T. W. Kirk. Index Faunæ N.Z., p. 251.

A male specimen from Ouenga (*Dr. Dendy*) agrees with Kirk's description and figures. Kirk's specimens were from Wellington; I have seen no specimens from the South Island.

MACRURA.

Palæmon affinis, M.-Edwards. Index Faunæ N.Z., p. 255.

Numerous specimens of this common species were sent by *Mr. Shand*.

Xiphocaris curvirostris (Heller). Index Faunæ N.Z., p. 255 ;
Thomson, Trans. Linn. Soc., Zool., viii, p. 447.

Numerous specimens brought to me by *Mr. Shand* from Chatham Island (fresh water); they seem to be quite the same as those found so abundantly in the Avon, Heathcote, and other New Zealand streams.

Mr. G. M. Thomson has already pointed out that it is noteworthy that the fresh-water shrimp found in Australia and Norfolk Island, *Xiphocaris compressa*, De Haan, is quite different from that found in New Zealand streams.

STOMATOPODA.

Lysiosquilla spinosa (Wood Mason). Index Faunæ N.Z., p. 256.

This species has been recorded from the Chatham Islands, under the name *Squilla indefensa*, by Mr. T. W. Kirk (Trans. N.Z. Inst., xi, p. 394).

AMPHIPODA.

Orchestia chiliensis, M.-Edwards. Index Faunæ N.Z., p. 257.

I have some specimens from Te Whakuru (*Miss Shand*) that must, I think, be referred to this species as defined by Mr. G. M. Thomson (Trans. N.Z. Inst., xxxi, p. 199).

Moera fasciculata, G. M. Thomson. Index Faunæ N.Z., p. 260.

Numerous specimens from Te Whakuru (*Miss Shand*), some of them rather larger than those usually taken on the east coast of the South Island, where the species is common. I do not feel sure of the generic position of this species; the secondary flagellum of the upper antenna consists of a single small joint, and the species does not exhibit marked sexual differences, and is very different from other species of *Moera* that I am acquainted with. I am of the opinion that it comes near to *Atyloides*, Stebbing.

Melita tenuicornis, Dana. Index Faunæ N.Z., p. 260.

One specimen collected by *Dr. Dendy*.

This species is common in New Zealand, and is found both in rock-pools on the open sea-coast and also in estuaries and lagoons when the water may be almost or quite fresh.

Mr. A. O. Walker has recently recorded it from Ceylon under the name *Mæra tenuicornis*, though pointing out that there are various discrepancies between his species and Dana's description and figures of the New Zealand form.* In the same year Mr. Stebbing described from Ceylon a new species, *Melita zeylanica*, which he was unable to refer to Dana's species, and distinguishes from it by numerous characters, though he appears to think that these differences may possibly be due to errors and inconsistencies in Dana's descriptions and figures.†

Phronima novæ-zealandiæ, Powell. Index Faunæ N.Z., p. 256.

Two specimens in the "casks" washed upon Te Whakuru Beach (*Miss Shand*), one with numerous young with her in the "cask."

ISOPODA.

Exosphæroma gigas, Leach. Index Faunæ N.Z., p. 263.

Several specimens of this widely spread species were in Mr. Thomson's collection, having been collected by Professor H. B. Kirk. Some of them were larger than those usually found on the east coast of the South Island, being intermediate between these and the large specimens found at the Auckland Islands. On the Chatham Islands specimens were found *Iais pubescens*, Dana, which appears to be almost invariably associated with this species.

Mr. Stebbing has fully described *Exosphæroma gigas* from Falkland Island specimens, and has established for it the genus

* *Amphipoda*, from "Report on the Pearl Oyster Fisheries," 1904, p. 273.

† "*Spolia Zeylanica*," vol. ii, part v, p. 22.

Exosphæroma, which differs from *Sphæroma* in having the last three joints of the maxillipeds lobed on the inner side.

Cymodoce^f*huttoni* (G. M. Thomson). Index Faunæ N.Z., p. 263.*

One specimen collected by *Professor H. B. Kirk*. This species is very common all round the coasts of New Zealand, and I have specimens also from the Antipodes Islands (*Dr. L. Cockayne*). It appears to be closely allied to *Dynamene eatoni*,† Miers, from Kerguelen, which is recorded also from Cape Horn by M. Adrien Dollfus in the "Mission du Cap Horn," Crust., p. F, 66.

(?) *Isocladus spiniger* (Dana). Index Faunæ N.Z., p. 263.

Numerous specimens from Te Whakuru (*Miss Shand*). These differ in several points from Lyttelton and other specimens that I have been in the habit of referring to Dana's species, and may prove to be a new species. They are rather larger, and lack the small teeth at the base of the large spine arising from the last segment of the pereion. The colour is brownish with darker markings, the edges of the epimera, bases of the antennæ, &c., being reddish.

Paridotea unguolata (Pallas). Index Faunæ N.Z., p. 264.

Specimens from Te Whakuru (*Miss Shand*). This species is widely distributed in the southern seas. Stebbing in his "Report on the South African Crustacea," pp. 53-55, instituted for it the new genus *Paridotea*, and describes the mouth parts and other structures more fully than had hitherto been done. He points out that his large dredged specimens have the 4th, 5th, and 6th joints of both gnathopods and first four pereipods thickly coated with hair on the inner margin, while the corresponding parts in the smaller beach specimens sent to him were comparatively smooth. I have taken specimens of both kinds together in shallow water on the sea-beach, and can state that the differences are sexual—the fine woolly hairs being found on these parts in large fully developed males, but not in the mature females, and probably not in immature males.

Idotea peronii, M.-Edwards. Index Faunæ N.Z., p. 264.

Three specimens from Te Whakuru (*Miss Shand*), reddish-brown or orange in colour (in formalin). One is a female with eggs in pouch, and has the 2nd, 3rd, and 4th segments of pereion somewhat expanded. The colour and markings of this species, though variable, are very protective, and resemble those of the red seaweeds on which it is found. One specimen has a median

* This species cannot remain in the genus *Cymodoce* as now defined by Hansen. It appears to belong to the new genus *Dynamella*, Hansen. See Q.J.M.S., vol. xlix, p. 107.

† Annals and Mag. Nat. Hist., xvi, p. 73 (1875).

white line about 2 mm. wide, extending from the cephalon all through the pereion and half-way along the pleon, the rest of the body reddish-brown. Another has white markings on the margins of the epimera, the third (female) without any white markings.

Iais pubescens, Dana. Index Faunæ N.Z., p. 264.

Numerous specimens found in the bottle, in which the only Sphæromids were the specimens of (?) *Isocladus spiniger*, Dana, mentioned above, and I have no doubt they were commensal on this species. They appear quite the same as those found on *Sphæroma gigas*, Leach. This species occurs throughout the southern seas as a commensal on several Sphæromids. Mr. Stebbing has given a full description of it in the Proc. Zool. Soc., 1900, p. 549-51.

Deto novæ-zealandiæ = *Oniscus novæ-zealandiæ*, Filhol, "Mission de l'Île Campbell," p. 441, pl. liv, fig. 7.

Among some Crustacea sent from Te Whakuru Beach by Miss Shand (August, 1903) are three imperfect specimens that evidently belong to this species. The rounded swollen granular prominence on each side of the 1st segment of the mesosome is very characteristic, and agrees well with Filhol's figure and description: "*Le premier anneau du corps présente chez certains sujets, de chaque côté, à ses extrémités, une saillie arrondie, globuleuse, couverte de très fines granulations.*"

Actæcia aucklandiæ, G. M. Thomson (Trans. N.Z. Inst., xi, p. 249), which I provisionally placed under *Scyphax* in 1901 (Trans. Linn. Soc., viii, p. 126), also belongs to the genus *Deto*, and is distinguished from *D. novæ-zealandiæ*, among other points, by the absence of the rounded prominences on the 1st segment of the pereion. I am preparing a fuller paper on these and other species of *Deto*.

Oniscus punctatus, G. M. Thomson. Index Faunæ N.Z., p. 265.

Two or three specimens from Pitt Island (*Dr. Dendy*). *Dr. Budde-Lund* informs me that he has established a new genus, *Phalloniscus*, for this and other allied species, but I have not yet received the paper in which this genus has been published.

Armadillo speciosus, Dana. Index Faunæ N.Z., p. 266.

In 1901 I referred some specimens from the Chathams in Mr. Thomson's collection to this species with some hesitation. I have since received further specimens of the same kind from Pitt Island, collected by *Dr. Dendy*, and think they must belong to Dana's species, but it is very difficult to know exactly what species was intended by some of the early descriptions. Dana's specimens were from the Bay of Islands.